REMARKS

Claims 1-20 remain in this application. Claims 1 and 11 are amended for purposes of clarification only, and are not narrowed thereby.

Claims 1-20 were rejected under 35 U.S.C § 102(b) as anticipated by Kalkunte. These rejections are respectfully traversed. Failing to disclose every element recited by the independent claims, Kalkunte presents no bar to patentability of the present invention.

Claims 1 & 11

Kalkunte discloses increasing network efficiency by reducing network collisions through management of low-level packet delay times. Kalkunte fails to disclose or suggest forming packets at a higher level, and then transferring the packet to a lower-level component for packeting according to a network protocol. That is, Kalkunte fails to disclose or suggest:

> removing a packet of information from the file after the receiving step;
>
> transferring the packet of information from the memory to a lower-level network component operative to configure the packet as at least one lower-level packet according to a protocol of a packet-switched network for transmission to the one of the plurality of client devices after the removing step,

wherein the packets of information are handled as defined elsewhere by claims 1 and 11.

In the Office Action at page 3, Kalkunte is cited at col. 4:49-57 as disclosing the claim language recited above. Kalkunte there discloses passing information byte-by-byte from a PCI bus interface to a transmit FIFO register of an Ethernet controller. Transferring bytes to a FIFO register as part of a caching operation for the MAC core, because, among other things, a "byte" is not a "packet" as these claims define. The present specification describes a packet as "preferably the same or larger than the size

of the typical packet size of the transmission control protocol in use on the network over which the file will be transferred, such as, for example, 8192 (8k) bytes." Page 5:27-29. A single byte is the lowest-level group of information bits used in computing, and it is not reasonable to construe a "byte" as a "packet" similar in size to a packet in a packet-switched network. This conclusion is reinforced by the claim language, which requires that the packet be transferred to "a lower-level network component operative to configure the packet as at least one lower-level packet according to a protocol of a packet-switched network." According the Kalkunte, the information is transferred on a byte-by-byte basis from the PCI bus interface to the FIFO register of an Ethernet component. As is well known in the art, an Ethernet packet includes multiple bytes of data and address information; it certainly cannot be reasonably construed as a "lower-level packet" as compared to a byte. Therefore, in disclosing transfer of bytes from a PCI bus interface to an Ethernet controller, Kalkunte fails to disclose the recited steps.

Likewise, transferring data via a PCI bus from a CPU to a PCI bus interface does not read on the claim language, because the PCI bus is not "a lower-level network component operative to configure the packet as at least one lower-level packet according to a protocol of a packet-switched network." Here too Kalkunte fails to disclose the recited steps.

If the PCI bus interface is ignored, in effect Kalkunte discloses a transfer of data from a CPU to a FIFO register of an Ethernet controller. As such, however, Kalkunte fails to disclose or suggest the removing of the transferred packet from a file. Kalkunte fails to disclose or suggest packetizing files before transferring via a local bus. No matter how the transfer of a file from a CPU to the Ethernet controller is analyzed, it is not the same as these recited steps of claims 1 and 11.

Kalkunte further fails to disclose controlling at least one of the delay period and packet size and to cause transmission delay that depends on file size, namely:

> repeating the removing step, the transferring step, and the pausing step in any operative order until all of the file has been transferred to the

> lower-level network component, wherein at least one of the delay period and a defined number of information bits in the information packet is controlled so as to cause later-transferred portions of the file to be delayed by increasing amounts until all portions of the file have been transferred, whereby the entire file is transferred at a rate that decreases with increasing file size

as defined by claims 1 and 11. Claims 2 and 12 specifically define increasing the delay time after each iteration of the removing, transferring and pausing steps. Kalkunte fails to disclose or suggest these elements.

Kalkunte discloses that under some circumstances (for example, if a collision is detected) a packet may be delayed so as to avoid network collisions. *See, e.g.,* col. 5:54-57. Under other circumstances during transmission of the same file, Kalkunte teaches reducing the delay interval to zero to accomplish a faster overall transmission. Col. 3:35-46; 6:45-55.

Kalkunte therefore teaches away from the present invention as defined by claims 1 and 11. According to the invention, the packets are controlled so as to cause transmission delays that increase with increasing file size, by increasing delays for later portions of a file. In contrast, Kalkunte teaches how to *increase* network throughput, which necessarily requires *decreasing* transmission times and conversely *increasing* transmission rates. Col. 2:62-64; 8:21-29; Tables 1-3. Kalkunte fails to disclose or suggest increasing the delay interval or reducing the packet size so as to cause the entire file to be transferred at a rate that decreases with increasing file size, as defined by claims 1 and 11.

It was argued in the last Office Action that the claimed result of "whereby the entire file is transferred at a rate that decreases with increasing file size" is inherent. This is not so. Inherency may only be found when the claimed feature is *necessarily present* in the thing described by prior-art reference. M.P.E.P. § 2163.07(a). Specifically, it was argued in the Office Action that "[w]hen more packets are sent without changing the bandwidth or transfer medium, it is inherent that their transfer rate

will decrease." Office Action, page 9. This statement is not supported and is somewhat unclear; it appears to be a statement that as network traffic increases on a fixed pipe, throughput decreases. If so, the statement may be true, but has nothing to do with what is claimed.

Claims 1 and 11 require that "at least one of the delay period and a defined size of the information packet is controlled so as to cause later-transferred portions of the file to be delayed by increasing amounts, whereby the entire file is transferred at a rate that decreases with increasing file size." In network media generally, transfer rates may go up or down with the volume of network traffic, which may be defined as the number of packets being transmitted at a given moment of time. However, as defined by claims 1 and 11, the packets that are used to transmit a file are *not* in transit at the same time. A delay is inserted between each packet; therefore the packets making up the file are transmitted sequentially. Therefore, no matter how many packets make up a file, there is never an increase in traffic during transmission that is caused by transmission, because no more than one packet is being transmitted at any given time. It may be true that the transmission rate of each individual packet may inherently vary with traffic volume, but this is not what is claimed. What is claimed is increasing delay for later-transferred file portions, so that the rate at which the entire file is transferred decreases with increasing file size. That is, the larger the file, the slower the overall rate (e.g., average bytes per second) that it is transmitted. Such a feature is not inherent in Kalkunte or any prior-art network.

Claims 2 and 12

Kalkunte further fails to disclose or suggest increasing the defined delay period after each iteration of the repeating step, as defined by claims 2 and 12. To the contrary, Kalkunte teaches away from this, by teaching that the delay period should be reset to zero to give priority to "the station having deferred once to another station." 6:45-55.

In the last Office Action, it was argued that Kalkunte teaches that "delay intervals are adjustable and delays can be increased." Office Action, page 9. This may be true, but again Kalkunte fails to disclose or suggest the recited feature of increasing the delay interval *after each iteration*. Such a process is plainly contrary to Kalkunte's stated purpose of increasing network throughput. Col. 2:62-64. Given a certain bandwidth and transfer medium, throughput can only be increased by increasing transmission rate. Kalkunte teaches increasing delays only to prevent collisions and longer delays that collisions would cause. Col. 3:23-30. Far from teaching the claimed feature, Kalkunte teaches away from it.

Claims 7 and 17

Kalkunte further fails to disclose or suggest determining the calculated value for a delay period from the file size or the file type so as to cause the entire file to be transferred at a rate that decreases with increasing file size, as defined by claims 7 and 17. As detailed in the last response, Kalkunte discloses modifying delay times based only on network conditions, not on file size. In every instance disclosed in Kalkunte, the delay interval is determined based on network conditions. Col. 5:23 – 7:49; Figs. 3A-3C.

In the last Office Action it was argued only that Kalkunte discloses setting a delay value based on network factors, including packet size. Packet size is not synonymous with file size under any reasonable claim construction. A frame passed to a FIFO register, as disclosed in Kalkunte at 4:61-63, lacks the high-level characteristic of a file, such as a file name. Moreover, a data frame as disclosed by Kalkunte cannot read simultaneously on both "packet" and "file," because these are distinct concepts.

In summary, Kalkunte is concerned only with whether or not a collision has occurred in determining a delay period. Col. 5:23 – 7:49; Figs. 3A-3C. Kalkunte fails to disclose or suggest "determining the calculated value from the file size or the file type," as defined by claims 7 and 17. These claims are therefore independently allowable.

Claims 8 and 18

With reference to claims 8 and 18, Kalkunte fails to disclose or suggest "setting the defined number of information bits in the packet of information to a calculated value after each execution of the pausing step." Kalkunte discloses setting a calculated *delay period*, however, this is distinct from setting the number of bits in a packet to control transmission time for a file. Col. 3:9-61. Kalkunte nowhere discloses changing the number of information bits in a packet. It is respectfully submitted that networks normally use a fixed packet size, and do not change the packet size during transmission so as to increase transmission time. No reference has been provided for the statement on page 5, para. 8 that "[n]etworks allow the size of packets to be set as claimed." In the absence of a reference showing the claimed subject matter, claims 1 and 18 should be regarded as independently allowable.

* * *

Other dependent claims 3-6, 9-10, 13-16 and 19-20 contain additional elements that are not disclosed or suggested by Kalkunte and are therefore independently allowable. In addition, each of the dependent claims is also allowable as depending from an allowable base claim.

In view of the foregoing, the Applicant respectfully submits that Claims 1-20 are in condition for allowance. Reconsideration and withdrawal of the rejections is respectfully requested, and a timely Notice of Allowability is solicited. To the extent it would be helpful to placing this application in condition for allowance, the Applicant encourages the Examiner to contact the undersigned counsel and conduct a telephonic interview.

While no fees are believed due in connection with the filing of this paper, the Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-3683.

Respectfully submitted,

Date: July 11, 2007

/Jonathan Jaech/
Jonathan Jaech
Attorney for Applicants
Registration No. 41,091

CUSTOMER NUMBER

58688

PATENT TRADEMARK OFFICE

Connolly Bove Lodge & Hutz LLP
355 South Grand Avenue
Suite 3150
Los Angeles, CA 90071-1560
(213) 787-2500